Undulating matter: a topology of the studio

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Abstract:

With specific reference to the writing of Dan Graham and the experiences of creative practice, this paper will elaborate an account of studio practice as a *topology* - a theory drawn from mathematics in which space is understood not as a static field but in terms of properties of connectedness, movement and differentiation. This paper will trace a brief sequence of topological formulations to draw together the expression of topology as *form* and its structural dimension as a *methodology* in the specific context of the author's studio practice. In so doing, this paper seeks to expand the notion of topology in art beyond its association with Conceptual Art of the 1960s and 70s to propose that topology provides a dynamic theoretical model for apprehending the generative 'logic' that gives direction and continuity to the art-making process.

Introduction:

In his 1969 essay *Subject Matter* Dan Graham briefly analyses one of Bruce Nauman's latex rubber works (*Untitled* 1965-66) a series of self-supporting rough latex swathes that each record the singular action of having been pulled upward into a standing arch by the artist. In his account Graham emphasizes latex's inherent '*expansion, contraction* and *skew*' that determines the dimensions and shape of each arch, expressed as 'surface topological deformation' (Graham & Wallis 1993, p. 42). In place of the preoccupation with Euclidean geometry that characterized Minimalism, Graham observes a more fluid notion of form in Nauman's work where material is shaped by the combined forces of gravity, its own physical properties and the artist's actions – and by extension to viewer's 'act of apprehension'. For Graham, the dynamic and fluid dimension of these qualities – the way they were intrinsically enmeshed - constituted a spatial-temporal continuum: a *topology*, a theory drawn from mathematics in which space is understood not as a static field but in terms of properties of connectedness, movement and differentiation.

As Osthoff explains, 'a classic mathematical joke states that "a topologist is a person who doesn't know the difference between a coffee cup and a doughnut," as both forms belong to the same class of round objects with a hole in them .. and can theoretically be transformed into one another.' (Osthoff 2006, p. 6)

As cultural theorist Arkady Plotnitsky explains, while geometry and topology are both ways of understanding space, topology 'disregards measurement or scale and only deals with the … essential shapes of figures. … Insofar as one deforms a given figure continuously (i.e., insofar as one does not separate points previously connected and, conversely, does not connect points previously separated), the resulting figure is considered the same… Thus all spheres, of whatever size and however deformed, are topologically equivalent, despite the fact that some of the resulting objects are no longer spheres, geometrically speaking. (Plotnitsky 2003, p. 99).

Given the notion of change that underpins topology as a branch of mathematics, it is not surprising that Graham would find resonance with the post-Minimalist interest in systems, seriality and entropy that was emerging at the time of his writing – all of which proposed challenges to the totalizing principle that underpinned Euclidean notions of geometry.

In addition to this the sculptural qualities of 'rubber sheet geometry' must have been appealing to Graham, especially given Nauman's increasing exploration of distortion and exaggeration in his performances. *topology* also carried with it primal associations. In *The Visible and the Invisible* (1968) Merleau-Ponty refers to a "brute" or "wild" mode of perception that is not yet directed by the Euclidean geometry and the opticality of Renaissance perspective. Instead he advises us to "replace the notions of concepts, idea, mind, representation, with the notions of dimensions, articulation, level, hinges, pivots, configurations."30 It is only through this that we might access the primordial, "non-perspectival image of being that . . . is at the same time older than everything and 'of the first day.'"31 To this primitive state of being, Merleau-Ponty gave the name "topology." As the terms of this brief excerpt indicate, *topology* carried associations that were based not in the alterity of metaphysics, but in the energies of the phenomenal world. In these terms, Nauman's slumping arches may be provisional arrangements, but they are far from tentative; instead they operate as powerful distillations of the foundational forces that shape matter and determine its behaviours.

Unlike conventional geometry (for example, grids) which articulate coordinates, axes and proportion, shape and number; topology is chiefly concerned with *how* space is organized (with the connective properties that arise from specific arrangements of elements) and with qualities of transformation over time. It is fundamentally a temporal account of space that Graham was alert to. To him, Nauman's latex forms were not simply 'material information' but as 'material *in-formation'*. His modification of the term emphasizing the durational quality of its form as an structurally incomplete 'event'. As De Bruyn puts it: 'The former

[information] refers to a static organization of space, filled with quantifiable data, while the latter term [in-formation] connotes a process of spatial and semantic dispersion' (De Bruyn 2006, p. 37).

This idea of topology as material 'in-formation' is possibly the most significant legacy that Graham and Nauman's generation have offered to contemporary art practice. Yet, Despite Graham's observations (which have been published widely) and Nauman's own use of the term (his contribution to the US Pavilion of the 53rd Venice Biennale in 2009 which was entitled *Topological Gardens* (see Basualdo et al. 2009) a structural analysis of Nauman's work – an account of its *topology* as it were – has, to the best of my knowledge, yet to be written.

Perhaps this is because topological analysis may offer more to the artist than it does to the art-historian. As an analytical model, topology seems to slide to readily into genealogical mapping – tracing the evolution of certain forms or motifs over time in an artists practice. To the artist though, topology provides a way of 'making sense' of the interactions between materials, processes, forms, space and apparatus that occur in the studio, dynamically and experimentally. As an emergent model of thought, it 'captures' the emergent qualities of art practice. Topological space can be said to evoke mental space "the space of thoughts and utterances" (Lefebvre & Nicholson-Smith 1991, p. 28). In certain instances, topological analysis is not simply a diagram of practice, but rather its intrinsic *condition*, one built on patterns of connection and change.

Subsequently, we can observe a topological principle at play in a broad spectrum of contemporary practice in which practice is shaped by constraint-based improvisations: such diverse practices as Hans Haacke, Rainer Ganahl, Simon Starling, Martin Kippenberger, Didier Vermeiren, Carol Bove, and Rachel Harrison are all exemplary of a topological mode of practice – in all of these practices there is a certain yielding to constraints or rules as a part of their generative logic, combined with a process of reconfiguration in which past work is recycled as a direct part of

the material and formal palette. In these terms, practice cannot be figured as a straightforward genealogy but rather a composite reticulated structure – an undulating web of referents which combine in provisional arrangements, produce more points of reference, and so on. As Michel Serres has put it: "a crumpled handkerchief, in which apparently widely separated points may be drawn together into adjacency" (Serres and Latour 1995: 60-1 in Conner, S. (2004) 'Topologies: Michel Serres and the Shapes of Thought', Anglistik 15: 105–17.).

Similarly to this field, my practice involves the application of a fairly rigid generative logic. One of the key points of reference that I have been exploring is the form of the sculptural self-portrait, especially the portrait bust. This is a means of tempering both the stable impression of self that characterises the self-portrait and the mimetic representational program more broadly (in my view all art is representational – it is an inescapable condition, so it seemed reasonable to 'front load' this). But it was also a way of shaping and controlling the field of choice by providing me with a sort of 'a priori' substrate upon which to build – the self-portrait became reductive point of reference from which a formal language could be developed in a way that we could call autogenously. That is, I use strategies of portraiture not to represent myself *per se*, but to represent the 'occasionality' of *practice* itself (to borrow a term from Hans Georg Gadamer) – the necessity of the portrait/work/practice to refer to the conditions of its production. In my work, this is manifest in the integration highly codified and structured approaches (for example, figurative modelling, mouldmaking and casting) - with un-premeditated 'events' (faults, studio paraphernalia, incidental objects, by-products etc).

These works are thus self-reflexive – the sculptural program that underpins the work is continually influenced by its own expression – the representational operation of self-portraiture is extended throughout works so that each work gives rise to new forms, arrangements and reference points. Within this process, the portrait bust has acted as a catalyst: its reductive form has 'cued' a variety of corresponding forms, all drawn in some way from the studio site: socles, roundels,

stands and mirrors along with forms or objects that have an 'undifferentiated' or amorphous quality such as erasers, rocks, 'drapery' and hair. These ingredients all enter the practice courtesy of a system of 'permissions'. **Specifically, items may enter the practice either courtesy of their intrinsic relationship to the making process** (e.g rods, mirrors, protective clothing), **or courtesy of their proximity to the site of production** (e.g rocks, stands, erasers) **on the condition that they can be located within the pre-existing palette of form** (circular forms, necked forms, truncated forms or amorphic shapes). By its nature then, this system of permissions gives rise to new ingredients that expand the formal range of the work and insodoing establish a generative field. This system of orientation - of 'data collection/control' – is thus *topological*; it provides a closed field of properties that can be combined in arrangements that are provisional, elliptical and intuitive, yet by providing a 'logical' framework, it also gives direction and purpose to the making process.

Elaboration on connections:

Transitive Property: 5 elements:

1) Base is a pot plant stand which had arrived in the studio for repairs an then became repurposed as a pedestal here. Its circular base and top echoed the circular socles that had formed components in previous works – parts which while connected to the bust format (they are the turned mounting bases that you see on certain types of 18th& 19th century busts) they also suggested the circular movement of the sculptural stands that are a regular part of the making process, and the circumnavigation that is a fundamental part of the in-the-roundedness of sculpture. The 'plinth' slab is an acrylic resin/gypsum cast of an exposed aggregate.

2) **The plinth is an exposed aggregate slab** from an outdoor table found accidentally on eBay while searching for examples of platonic rocks. The table-top was comprised of rocks, relevant due to their connotations with divine emergence courtesy of Michelangelo's Dying Slaves, but reduced to a composite, huddled mass.

3a) The larger form is composed of two elements, an **oversized rendering of a beanie** turned inside-out which was in the first instance an unused piece of studio headware that was lost in a drawer for several years then stumbled upon behind a drawer one summer. It resembled the pileus cap – cap of freedom awarded to freed slaves in ancient Greece and which became synonymous with the French Revolution - that I was looking into at the time. When truned inside-out and modeled, it looked less like a beanie and more like a rendering of the silicone mould from which it was eventually cast. There are parent-child confusions to this process which I am also interested in.

3b) It is nested in a **cast of a circular framed mirror** – also a part of the studio equipment – but cast in acrylic resin, it formed a tidy nest for the beanie and heightened it undulating, unfolding qualities.

4) The final component is **an eraser** one of a number recovered from my car's footwell – so located in a space ancillary but contiguous with the studio space. The shape of this form (chewed) resembles the serrated profile of the Ian Fairweather memorial rock (the subject of another sculpture in this body of work)

As this brief account indicates, practice provides a forum for observing the interoperations of objects that accrue through and around the modeling/casting process – some of which are directly contrived forms, others entirely incidental - and then editing and recomposing the work in light of the correspondences that emerge. The result is a field of object relations – tableaux – that are highly provisional and mobile. Seen collectively, these elements comprise a *topological* field in which the interconnection both *between* and *in* the works is active.

When read topologically – that is viewed as pure surface - this connection is not just associative but can in fact be regarded as one of equivalence – like the coffee cup and the donut, each of these forms could (theoretically) push/pull into each other seamlessly. This proposes a new way of linking these disparate objects that makes

sense to the interplay of order/happenstance in which the practice was initiated - difference is bridged by a topological order. Under these conditions, sculptural form is articulated as surface rather than volume – highly appropriate given the fact that almost all of these elements are hollow casts. By extension, pushing/pulling of surface is manifest in the technical process of casting from rubber moulds – fluid membranes that give rise to the fixed shells of the cast – skins that beget skins.

Conclusion

This is the advantage that a topological theory of practice provides – it presents a way of apprehending the 'logic' that shapes and directs studio processes. In moving beyond notions of linear structures towards an elastic membranous field, the topological model allows for the fluid combinations of ingredients, while also enabling a way of envisaging new relations within that system. Not simply a diagrammatic tool, the topological field has an *autogenous* dimension, producing the sense of alter-subjectivity – of the work, in a sense constituting it own intelligence – that occurs during the making that emerges from the making process.

Methodologically, then, a topological model of practice draws attention to the status of practice as an 'assemblage of thought and actions', rather than as a diagram of a self which is totalized in the work of art. As a fluid web of references and operations, topology might thus be thought of as the invisible organism of practice.

BIBLIOGRAPHY

Basualdo, C, Taylor, MR, De Michelis, M, Battle, EF, Philadelphia Museum of Art., Universitáa Iuav di Venezia. & Universitáa degli studi di Venezia. 2009, *Bruce Nauman : topological gardens*, Yale University Press, New Haven, Conn. ; London.

De Bruyn, E 2006, 'Topological Pathways of Post-Minimalism', *Grey Room*, no. 25, pp. 32-63.

Deleuze, G & Guattari, Fl 1988, *A thousand plateaus : capitalism and schizophrenia*, Athlone Press, London.

Graham, D & Wallis, B 1993, *Rock my religion, 1965-1990*, MIT Press, Cambridge, Mass.

Lefebvre, H & Nicholson-Smith, D 1991, *The production of space*, vol. 30, Blackwell Oxford.

Osthoff, S 2006, 'Elsewhere in Contemporary Art: Topologies of Artists' Works, Writings, and Archives', *Art Journal*, vol. 65, no. 4, pp. 6-17.

Plotnitsky, A 2003, 'Algebras, Geometries, and Topologies of Philosophy: On Deleuze, Derrida, and Mathematical Knowledge', in P Patton & J Protevi (eds), *Between Deleuze and Derrida*, Continuum, New York, pp. 98-119.